



TWENTY-SECOND TRANSDUCER WORKSHOP

Fort Worth, Texas

JUNE 20-21, 2006

Sponsored by
Vehicular Instrumentation/
Transducer Committee of the
Range Commanders Council
Telemetry Group

Definition of The Transducer Workshop

History

The Vehicular Instrumentation/Transducer Committee, Telemetry Group, of the Range Commanders Council, sponsors the Workshop. This committee develops and implements standards and procedures for instrumentation applications. The previous workshops, beginning in 1960, were held at two-year intervals at or near various U.S. Government installations around the country.

Attendees

Attendees are working-level people who must solve real-life hardware problems and are strongly oriented to the practical approach. Their field is making measurements of physical parameters using transducers. Test and project people who attend will benefit from exposure to the true complexity of transducer evaluation, selection, and application.

Subjects

Practical problems involving transducers, signal conditioners, and read-out devices will be considered as separate components and in systems. Engineering tests, laboratory calibrations, transducer developments, and evaluations represent potential applications of the ideas presented. Measurands include force, pressure, flow, acceleration, velocity, displacement, temperature, and many others.

Emphasis

The Workshop

1. Is a practical approach to the solution of measurement problems,
2. Strongly focuses on transducers and related instrumentation used in measurements engineering,
3. Has a high ratio of discussion to presentation of papers, and
4. Attendees share knowledge and experience through open discussion and problem solving.

Goals

The workshop brings together those individuals who use transducers to identify problems and to suggest solutions, identifies areas of common interest, and provides a communication channel within the community of transducer users. The primary goals are to:

1. Improve the coordination of information regarding transducer standards, test techniques, evaluations, and application practices among the national test ranges, range users, range contractors, other transducers users, and transducer manufacturers;
2. Encourage the establishment of special sessions so that attendees with measurement problems in specific areas can form subgroups and remain to discuss these problems after the workshop concludes; and
3. Solicit suggestions and comments on past, present, and future Vehicular Instrumentation/Transducer Committee efforts.

Format and Background

Workshops are just what the name implies: everyone should come prepared to contribute something from their knowledge and experience. In a workshop, the attendees become the program in the sense that the extent and enthusiasm of their participation determine the success of the workshop. Participants will have the opportunity to hear what their colleagues have been doing and how it went; to explore areas of common interest and common problems, and to offer ideas and suggestions about what's needed in transducers, techniques, and applications.

Program

Monday, June 19, 2006

1900 Social Hour - TBD
Courtesy of the Vehicular Instrumentation/Transducer Committee

Tuesday, June 20, 2006

0700 REGISTRATION

0800 **General Chairman**, Sam Marderness, Aberdeen Test Center

Session Chair: Teresa Telles, NAVAIR China Lake

0800	Transducer Workshop Welcome and brief history of the TWS and RCC	1400	An Overview of Current Smart Sensor Standardization Efforts Jay Nemeth-Johannes, Smart Sensor Systems
0830	Tutorial: Differential Coupling: Caveat Emptor! Peter Stein, Stein Engineering Services, Inc	1430	BREAK
TBD	BREAK	1500	Advanced Hawkeye Loads, Risk Reduction Project Tony Cullison, NAVAIR, Patuxent River
1130	LUNCH (off site)	1530	Ferroelectric Ceramic Technology for Sensors James McIntosh, PCB Piezotronics
1300	Exploring Fiber Optic Strain Sensors for Testing Future Aerospace Structures David Banaszak, Air Force Research Laboratory, Wright-Patterson Air Force Base	1600	JAMI GPS/IMU Sensor Steve Meyer, NAVAIR, China Lake
1330	Motion Analysis Smart Sensor (MASS) Ryan Stowell, Aberdeen Test Center	1630	Wrap-up, day 1

Tuesday, June 20, 2006

1800 Transducer Workshop Social Outing – Ft. Worth Stockyards National Historic District

Wednesday, June 21, 2006

Session Chair: Lorin Klein, Air Armament Center, Eglin Air Force Base

0800	Tutorial: Data Collection: A Prerequisite to Data Uncertainty Analysis Dr. Patrick Walter, Texas Christian University/PCB	1400	TCU, Systems Design 40903, The Practical Side of Education Lori Shannon, Texas Christian University (student)
TBD	BREAK	1430	BREAK
1100	Advanced Subminiature Telemetry Dennis Manning, Air Armament Center, Eglin AFB	1500	Dynamic Calibration of Piezoelectric Pressure Transducers (Art, Science, and Compromise) Scott Walton, Aberdeen Test Center
1130	LUNCH (off site)	1530	Intellibus Sensor Network Phil Ellerbrock, Boeing
1300	UXO Detection Using RF Mark Ilg, US Army Research Laboratory, Aberdeen Proving Ground	1600	Non-Contact Temperature Measurement Technology Jorge Jordan, NAVAIR, Patuxent River
1330	Latest Ruggedized Transducers for Extreme Environments with Static and Dynamic Capability Alex Ned, Kulite	1630	Workshop Wrap-up

General Information

All attendees and participants are required to register. The registration consists of a completed registration form and a fee of \$50.00 to:

Ray Faulstich, Treasurer
Transducer Workshop
44195 Steele Lane
Leonardtown, MD 20650

Advance registration is desirable, even without prepayment. If possible, please use the registration form; include a check or money order (payable to the Transducer Workshop) for \$50.00 and mail to the Workshop Treasurer. **Purchase orders, training forms, and Credit Cards are not acceptable.** Register by telephone at 301-737-8129, FAX at 301-863-7759 or by email to rfaulstich@csc.com. Late registration or payment will be at the Workshop registration desk in the conference center.

Conference Facility

The Twenty-Second Transducer Workshop will be held on the Texas Christian University campus at the Tucker Technology Center, Room 139, Roach Professional Development Center, 2840 W. Bowie Street, Fort Worth, TX 76129.

Hotel Accommodations

No specific hotel has been designated; however, the Monday evening hospitality room will be hosted at:

Courtyard by Marriott
3150 Riverfront Drive
Fort Worth, TX 76107
(817) 335-1300 or (800) 321-2211

Other nearby hotels include:

Fairfield Inn
1505 S. University Drive
Fort Worth, TX 76107
(817) 335-2000 or (800) 228-2800

Homestead Studio Suites Hotel
1601 River Run
Fort Worth, TX 76107
(817) 338-4808 or (888) STAYHSD

Tuesday Evening Outing

A shuttle bus will be provided (based on the level of interest) to take everyone to/from the Ft. Worth Stockyards National Historic District, Tuesday evening between 6-11 PM. As shown on this website ---> <http://www.fortworthstockyards.org/VisitorInfo.htm> there are many options for shopping, dining and nightlife. Bus stop locations and times will be determined later. More than 20 sign-ups are needed to make the bus viable. Indicate your choice on the registration form.

Twenty-Second Transducer Workshop

The Twenty-Second Transducer Workshop, sponsored by the Vehicular Instrumentation / Transducer Committee, Telemetry Group, of the Range Commanders Council, will be held June 20-21, 2006 at the Texas Christian University, Ft. Worth, TX. This committee develops and implements standards and procedures for transducer applications. Attendees are working level people who must solve real-life hardware problems and are strongly oriented to the practical approach. Test and project people who attend will benefit from exposure to the true complexity of transducer evaluation, selection, and application.

Since there is also limited seating available at the Transducer Workshop attendees are encouraged to register as early as possible. With your registration please include a \$50.00 registration fee payable to the Transducer Workshop, and mail to the Workshop Treasurer by June 1, 2006.



Twenty-Second Transducer Workshop Registration Form



Name _____ Title _____
Organization _____
Mailing Address _____

Phone _____
Email _____

TUESDAY EVENING OUTING AT THE STOCKYARDS - I would like to ride the bus **YES or NO**

WORKSHOP REGISTRATION FEE is \$50.00

- ◇ Check or money order payable to Transducer Workshop is enclosed
- ◇ Register now, pay at the Workshop

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Leonardtown, MD 20650

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Register by phone: 301-737-8129
Register by FAX: 301-863-7759